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Sheet 3

Q1)
```
#include <stdio.h>
#include <string.h>

Void concat(char s1[], char s2[]) {
        int l = strlen(s1);
         For (int i=0; i<= strlen(s2); i++)
                s1[l+i] = s2[i];
     }
int main() {
        char s1[100], s2[100];
        gets(s1); gets(s2);
        concat (s1, s2);
        PrintF("s1 = %s \n s2 = %s", s1, s2);
     }
```

Q2)
```
#include<stdio.h>
#include <string.h>

int main() {
      char s[100];
      gets(s);
      For( int i=0; i< strlen(s); i++) {
            if (s[i] == 'z') {
                  PrintF("the Position : %d", i+1);
                  return;
            }}
      PrintF(" Not Found");
   }
```

Q3)
```
#include <stdio.h>
#include <string.h>

  int strcnt(char s1[], char c){
        int count =0;
        For (int i=0; i< strlen(s1) ; i++) ~~{~~
              iF (s1[i] ==c)
                      count ++;
        return count ;
      }
  int main(){
      char s1[100];   char c;
       gets(s1);    c= getchar();
       int  count  = strcnt(s1,c);
      printF("%d times", count);
     }
```

Q4)
```
#include <stdio.h>
#include <string.h>

  int strin (char s1[], char s2[]) {
        int Flag=0;
        For ( int i=0; i< strlen(s2)- strlen(s1) +1 ;i++)
              iF(s1[0]== s2[i])
                     For(int j=0; s1[j]==s2[i+j]&&s1[j];j++
                         iF( j== strlen(s1)-1)
                               Flag =1;
        return Flag; }
     int main(){
       char s1[100], s2[100];
        gets(s1); gets(s2);
        PrintF("%d",strin(s1,s2));
     }
```

Q5)
```
#include <stdio.h>
#include <string.h>

Void strr(char s1[], int i, int n){
    iF(i==n) return;
    char tmp =s1[i];
    strr(s1, i+1, n);
    s1[n-i-1] = tmp;
}
 int main(){
     char s1[100]; gets(s1);
     strr(s1, 0, strlen(s1));
     PrintF("%s", s1);
 }
```

Q6)
```
#include <stdio.h>
#include <string.h>

 int replace(char s1[]){
     int count =0;
     For( int i=0; i< strlen(s1); i++)
         iF(s1[i]==' '){
           s1[i] ='-';
           count++;
         }
     return count
}
  int main(){
      char s1[100]; gets (s1);
      PrintF(" your string : %s\n the number of spaces:%d
            , s1, replace(s1));
  }
```

Q7) a) 0 2 1

b) -1, 0, 6, 7, 8, 9

Q9) The output is: ~~16~~ The size of a_struct: 16-byte

Q8)
```
#include <stdio.h>
  typedef struct{
       int day, month, year;
  } BirthDate;
  typedef struct{
       int id_no, salary;
       BirthDate birth_date;
       int tasks_ids[5];
  }Employee;
//a
Employee NewEmployee(){
       Employee man;
       scanf("%d%d%d%d%d", &man.id_no, &man.salary,
               &man.birth_date.day, &man.birth_date.month,
               &man.birth_date.year);
       For (int i=0 ; i<5; i++)
               scanf("%d", &man.tasks_ids[i]);
       return man; }
//b
int FindSalary(Employee employees[], int n, int id_no){
     For(int i=0; i<n ; i++)
            if(id_no == employees[i].id_no)
                    return employees[i].salary;
     return -1;
  }
```